

Claims

1. A racket for ball games including a frame (4) having a racket head (6) and a handle portion (10) connected thereto via a heart region (8) and being formed of a hollow profile formed by winding a plurality of layers, wherein on the racket head (6) and/or in the heart region (8) the frame (4) comprises at least one dampening layer (12) being wrapped between the layers forming the hollow profile.
2. The racket according to claim 1, wherein a plurality of dampening layers (12) are arranged in pairs and essentially symmetrical with respect to the longitudinal axis of the racket (2).
3. The racket according to claim 1 or 2, wherein a dampening layer (12a) is provided in the area between four o'clock and six o'clock and a further dampening layer (12b) between six o'clock and eight o'clock on the racket head (6).
4. The racket according to any one of claims 1 to 3, wherein a dampening layer (12a) is provided at about five o'clock and a further dampening layer (12b) at about seven o'clock on the racket head (6).
5. The racket according to any one of claims 1 to 4, wherein a dampening layer (12d) is provided in the area between one o'clock and three o'clock and a further dampening layer (12c) between nine o'clock and eleven o'clock on the racket head (6).
6. The racket according to any one of claims 1 to 5, wherein a dampening layer (12d) is provided at about 2 o'clock and a further dampening layer (12c) at about ten o'clock on the racket head (6).
7. The racket according to any one of claims 1 to 6, wherein the dampening layer (12) is formed of a shock and/or vibration absorbing material.
8. The racket according to any one of claims 1 to 7, wherein the material of the dampening layer (12) is synthetic rubber, in particular polyisoprene, styrene-butadiene rubber, polychloroprene or urethane rubber, or a mixture of natural rubber and synthetic rubber.
9. The racket according to any one of claims 1 to 8, wherein the material of the at least one dampening layer (12) has a thickness ranging between 0.05 mm and 0.3 mm,

preferably between 0.15 mm and 0.25 mm, more preferably a thickness of about 0.2 mm.

- 5 10. The racket according to any one of claims 1 to 9, wherein the width of the material of the at least dampening layer (12) is dimensioned such that the dampening layer extends over at least one, preferably two or more winding(s) in the hollow profile.
- 10 11. The racket according to any one of claims 1 to 10, wherein the material forming the at least one dampening layer (12) has a width ranging between 30 mm and 150 mm, preferably between 70 mm and 140 mm, more preferably between 80 mm and 130 mm.
- 15 12. The racket according to any one of claims 1 to 11, wherein the at least one dampening layer (12) has a length (L) ranging between 20 mm and 150 mm, preferably between 40 mm and 110 mm.
- 20 13. The racket according to any one of claims 1 to 12, wherein the at least one dampening layer (12) is provided in the form of a plurality of strips (20).
- 20 14. The racket according to claim 13, wherein the strips (20) extend essentially parallel with respect to each other.
- 25 15. The racket according to claim 13 or 14, wherein each strip (20) has a length (l) ranging between 3 mm and 10 mm, preferably between 5 mm and 7 mm.
- 25 16. The racket according to any one of claims 1 to 15, wherein the dampening material has a Shore A hardness greater than 30, preferably between 65 and 75.
- 30 17. The racket according to any one of claims 1 to 16, wherein the dampening layer is provided under an angle ranging between 0° and 45°, preferably between 5° and 15° with respect to the longitudinal direction of the frame.
- 35 18. A process for producing a racket, in particular according to any one of claims 1 to 17, comprising the following steps:
  - (a) providing a windable layer material;
  - (b) placing a web-shaped dampening material onto the layer material;
  - (c) winding the at least partially overlapping layer material and dampening material to form a tube; and

(d) forming a frame (4) consisting of a frame profile made of the tube, wherein the frame comprises a racket head (6) and a handle portion (10) being connected therewith via a heart region (8);

5 wherein the frame (4) comprises at least one dampening layer (12) of the dampening material at the racket head (6) and/or in the heart region (8), said dampening layer (12) being wrapped into the layers forming the hollow profile.

10 19. The process according to claim 18, wherein the dampening material is placed in such a manner that a plurality of dampening layers (12) are provided in pairs and essentially symmetrical with respect to the longitudinal axis of the racket (2).

20. The process according to claim 18 or 19, wherein a plurality of strips (20) of the dampening material together form the dampening layer (12).

15 21. The process according to claim 20, wherein the strips (20) are arranged so as to essentially extend parallel with respect to each other.

20 22. The process according to any one of claims 16 to 21, wherein the dampening material is wound under an angle ranging between 0° and 45°, preferably between 5° and 15° with respect to the longitudinal direction of the frame.

25 23. The process according to any one of claims 18 to 22, wherein the frame (4) is molded in a molding press under the influence of pressure and temperature.